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10/690,778	10/22/2003	Naoki Abe	CHA920030025US1	1597

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EXAMINER	
MURDOUGH, JOSHUA A	
ART UNIT	PAPER NUMBER
3621	

NOTIFICATION DATE	DELIVERY MODE
06/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

Office Action Summary	Application No.	Applicant(s)	
	10/690,778	ABE ET AL.	
	Examiner	Art Unit	
	JOSHUA MURDOUGH	3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-37* is/are pending in the application.

4a) Of the above claim(s) *12-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgements

1. This action is responsive to Applicants' amendments received 12 February 2009.

2. This action has been assigned paper number 20090526 for reference purposes only.

3. Claims 1-3 and 5-37 are pending.

4. Claims 12-37 are withdrawn.

5. Claims 1-3 and 5-11 have been examined.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2, 5, 6, 8, 10, and 11, as understood by the Examiner, are rejected under 35 U.S.C. §103(a) as being unpatentable over Blumberg (US 6,240,415) in view of Silverbrook (US 6,317,192).

8. As to claims 1 and 6, Blumberg shows:

   a. A system for detecting fraudulent transactions, comprising:

   b. an interface (interface components: keyboard 114 and monitor 104) for inputting transaction data **78** and outputting analysis results **86**; and

c. a security system (C 7, LL 38-50) that can restrict access to data and program execution;

d. an analysis system **28** for analyzing inputted transactions;

e. a plurality of surveillance algorithms (C 13, LL 37-49) stored in an encrypted database (C 10, LL 1-16); and

f. a selection program ("operating system," C 9, LL 10-17) for selecting at each of a sequence of random times a different surveillance algorithm to be used by the analysis system (algorithms are used at the times when the user accesses the system, not at prescheduled intervals).

9. Blumberg does not expressly show: a tamper resistant secure data processing unit (SDPU).

10. Silverbrook teaches the use of tamper detection circuitry (Figure 177) and Message Authentication Codes ("MAC," CC 145-146, LL 59-16) . Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of Blumberg to add the tamper detection circuitry and MAC's of Silverbrook. Both the circuitry and the use of MAC's together provide tamper detection that would allow for the verification of the device and messages and provide greater confidence in the security of the transaction.

11. As to claim 2, Blumberg further shows:

the SDPU further includes an algorithm performance system ("management console," C 13, LL 58-61) that assists the selection program in selecting surveillance algorithms ("decision

making is managed from the desktop," Id.).

12. As to claim 10, Blumberg further shows:

the security system prevents observation of the operational behavior of the SDPU (Firewalls 20 and 30 prevent unauthorized access to the system).

13. As to claim 5, Blumberg further shows:

the security system includes an encryption system for encrypting and decrypting data (as the values and algorithms are encrypted, a system to perform the encryption and decryption is necessarily present).

14. As to claim 11, Blumberg further shows:

decrypting the selected surveillance algorithm (As the algorithms are encrypted, the decryption is necessarily present in order to execute them.).

15. Claims 3 and 7-9, as understood by the Examiner, are rejected under 35 U.S.C. §103(a) as being unpatentable over Blumberg and Silverbrook as applied to claims 1, 2, and 6 above, and further in view of Douceur (US 2004/0060042).

16. Blumberg further shows the use of alert messages (C 7, LL 48-49)

17. Blumberg does not expressly show:

g. the selection program utilizes a random selection program for selecting surveillance algorithms;

h. measuring a randomness of the algorithm selection process using a technique selected from the group consisting of correlation and entropy measures; and

i. issuing an alert is the randomness goes under a predetermined threshold.

18. Douceur shows random selection [0050] with a predefined correlation coefficient ("rho," [0067]) and the calculation of the correlation coefficient from already generated random values [0074]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the teachings of to one of ordinary skill in the art at the time of the invention to have further modified the teachings of Blumberg to add the calculations and selection method of Douceur so that a comparison of the predefined rho and the calculated rho would trigger an alert as taught by Blumberg if the difference exceeded a threshold. The random selection of algorithms would allow for a more secure system through the use differing algorithms but with efficiency near that of just using one algorithm because only one is in use at a time. The alert would allow for a notice that the system is not operating properly or has become too predictable. If the system becomes predictable, the added security of the rotating algorithms is diminished.

Claim Interpretations

19. With respect to claims 1-3 and 5, the Examiner respectfully reminds Applicants that: "A system is an apparatus." *Ex parte Fressola* 27 USPQ2d 1608, 1611 (B.P.A.I. 1993)(citations omitted). Additionally, "[c]laims in apparatus form conventionally fall into the 35 U.S.C. §101 statutory category of a 'machine.'" *Ex parte Donner*, 53 USPQ2d 1699, 1701 (B.P.A.I. 1999)(unpublished), (Paper No. 34, page 5, issued as U.S. Patent 5,999,907). Therefore, it is the

Examiner's position that Applicants' system claims (*i.e.* claims 1-3 and 5) are "product," "apparatus," or more specifically, "machine" claims.[1]

20. The Examiner finds that because all of the examined claims recite neither "step for" nor "means for," all of the examined claims fail Prong (A) as set forth in MPEP §2181 I. Because all examined claims fail Prong (A) as set forth in MPEP §2181 I., the Examiner concludes that all examined claims (*i.e.* claims 1-3 and 5-11) do not invoke 35 U.S.C. §112, 6th paragraph. See also *Ex parte Miyazaki*, 89 USPQ2d 1207, 1215-16 (B.P.A.I. 2008)(precedential).

21. After careful review of the original specification and unless expressly noted otherwise by the Examiner, the Examiner concludes that Applicants are not their own lexicographer. See MPEP §2111.01 IV.

22. Because neither 35 U.S.C. §112, 6th paragraph nor lexicography is invoked, the claims are interpreted with their broadest reasonable interpretation. See MPEP §2111.01.

23. Claims 1-3 and 5 are understood to be apparatus claims. As such, they are subject to interpretation as outlined by MPEP § 2114, wherein it says, "While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function" and "[A]pparatus claims cover what a device is, not what a device does." While the Examiner has cited references for the functional limitations that do not require an alteration of the structure for purposes of compact prosecution, it is his principal position that these elements do not need to be shown in

[1] Products may be either machines, manufactures, or compositions of matter. MPEP §2106 IV *B.* 2 (a).

order to show anticipation or obviousness. It is suggested that the claims be amended to clearly show the structural elements to prevent issues associated with this type of interpretation.

Definitions

24. The Examiner hereby adopts the following definitions under the broadest reasonable interpretation standard. In accordance with *In re Morris,* 127 F.3d 1048, 1056, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997), the Examiner points to these other sources to support his interpretation of the claims.[2] Additionally, these definitions are only a guide to claim terminology since claim terms must be interpreted in context of the surrounding claim language. Finally, the following list is not intended to be exhaustive in any way:

Random: "1a: lacking a definite plan, purpose, or pattern." Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield MA, 1986.

Surveillance: "close watch kept over someone or something (as by a detective): also: SUPERVISION." Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield MA, 1986.

Tamper: "2a: to interfere so as to weaken or change for the worse." Webster's Ninth New Collegiate Dictionary, Merriam-Webster Inc., Springfield MA, 1986.

[2] While most definitions are cited because these terms are found in the claims, the Examiner may have provided additional definition(s) to help interpret words, phrases, or concepts found in the definitions themselves or in the prior art.

Response to Arguments

25. Applicant's arguments filed 12 February 2009 have been fully considered but they are not persuasive.

26. Applicants argue:

27. "Applicant submits that Blumberg fails to show "a plurality of surveillance algorithms stored in an encrypted database; and a selection program for selecting at each of a sequence of random times a different surveillance algorithm to be used by the analysis system." The Office has cited col. 13, lines 37-49 in Blumberg as support for a plurality of surveillance algorithms. However, this passage in Blumberg explains that different algorithms and databases are used to establish probabilities and outcomes and consequences. Blumberg is using the input from the users and other statistical data to determine how a team is managed. These outcomes (salaries and bonuses) are based on the input of the fans or users (col. 13, lines 8-22). Thus, these algorithms are not surveillance algorithms as required by the claims of the instant invention. The surveillance algorithms of the present invention look at transactions and make some determination regarding the probability that the transaction is fraudulent (page 9, lines 8-11). In contrast, the algorithms of Blumberg take input data from users and output a result (Abstract)." (Remarks, Page 12, Paragraph 2).

28. Examiner's response:

29. Applicants appear to be arguing that "surveillance algorithm" has a special definition established on page 9, lines 8-11 of their specification. The only whole sentence found on page 9, lines 8-11 of Applicants' specification reads as follows:

> Analysis system 22 may include any algorithms, filters, models, etc., which can look at certain transaction details and make some determination regarding the probability that the transaction is fraudulent.

30. In order to establish a lexicographic definition for a term or phrase, an inventor must set out their definition "with reasonable clarity, deliberateness, and precision" (MPEP § 2111.01 IV). In the present application, Applicants' citation to their specification fails to set forth such a definition. First, the quoted passage states any one of "algorithms, filters, models, etc" may be used to "look at certain transaction details and make some determination regarding the probability that the transaction is fraudulent." Therefore, it is not clear that an algorithm needs to be involved. Second, the passage recites, "can look at certain transaction details and make some determination regarding the probability that the transaction is fraudulent" (emphasis added). Because of the use of the words "can," and "some," the algorithm does not necessarily have to perform this function nor does it say exactly what determination is made. Thus, there is a lack of precision. Finally, nowhere in the quoted passage do Applicants use the word "surveillance." Thus, Applicants have not made a deliberate effort to establish this as a definition.

31. Because of the lack of clarity, precision, and deliberateness in the cited passage, the Examiner must conclude that no lexicographic definition has been provided. Thus, there is no evidence to rebut the presumption that claim terms are to be given the broadest reasonable interpretation. As Applicants must "'set out his uncommon definition in some manner within the

patent disclosure[,] so as to give one of ordinary skill in the art notice of the change' in meaning" (MPEP § 2111.01 IV). Therefore, if it has not been established with the original disclosure, it is likely to be considered new matter if added to the disclosure. However, Applicants can amend their claims to recite the definition. If this is done, the method claims would likely overcome the reference. However, patentability in apparatus claims comes from what it is not what it does.

32. To make this argument moot and if Applicants desire to have some definitional phrases from their specification used in the claims, the Examiner respectfully reccommends amending the *claims* themselves to include Applicants' desired definition(s). By including any definitional terms or phrases in the *claims* themselves, whether or not Applicants specification contains lexicographic definitions would be a moot point.

33. In summary, because Applicants have not provided lexicographic definitions, the presumption is that the broadest reasonable interpretation is given to all claims. To support his position, the Examiner has provided a dictionary definition as evidence for the term "surveillance" as noted above. This is an interpretation of what one of ordinary skill in the art would take the meaning to be. Given the above cited definition, the algorithms of Blumberg read on the claim language because they watch the inputs.

34. Applicants argue:

35. "Blumberg does not teach a selection program for selecting, at random times, a different surveillance program to monitor transactions. Blumberg (col. 9, lines 10-17) is cited by the Office to support a selection program, yet this passage teaches an operating system used to execute computer code and that the computer code can be stored on various devices. This

passage of Blumberg does not provide any support for random selection surveillance algorithms" (Remarks, Pages 12-13, Paragraph spanning).

36. Examiner's response:

37. The Examiner again notes that claims 1-3 and 5 are apparatus claims. Apparatus claims must be structurally distinguished from the prior art.

38. Applicants have not stated which limitation this argument is regards to. The Examiner has guessed that it is intended to correspond to lines 8-9 of claim 1. These lines read "a selection program for selecting at each of a sequence of random times a different surveillance algorithm to be used by the analysis system." This limitation does not recite the random selection of surveillance algorithms. This limitation recites "random times a different surveillance algorithm to be used by the analysis system" (emphasis added).

39. Again the Examiner finds no lexicographic definition that applies. Therefore, "random" is interpreted under the broadest reasonable interpretation. In support of this interpretation, the Examiner has provided a definition above. Blumberg is directed towards monitoring for inputs and acting on them when they arrive. There is no definite plan, purpose, or pattern to the timing of these inputs. Therefore, the Examiner considers the timing of the responses by the algorithms to be random.

40. Applicants argue:

41. "Silverbrook does not provide a tamper-resistant SDPU (claim 1) or a tamper resistant computing environment (claim 6). Silverbrook provides a method to ensure a message sent from

party B to party A has not been intercepted. This is accomplished by a message authentication code generated by B and read by A. Combining this feature with Blumberg would not create a tamper resistant SDPU or a tamper resistant computing environment. Thus, the rejection should be withdrawn" (Remarks, Page 13, Paragraph 1).

42. Examiner's response:

43. As noted by Applicants, Silverbrook implements message authentication. Authenticating a message verifies that the data is the correct and the message is from the stated party. This prevents people from easily interfering with and changing the messages. A definition for tamper is "to interfere so as to weaken or change for the worse" (citation in Definitions section above). Therefore, preventing the tampering with messages makes the system tamper resistant.

44. Applicants argue:

45. "Douceur shows an algorithm to generate layouts wherein the algorithm has "random selection aspects" (page 4, paragraph [0050]). This algorithm than generates layouts of a program image that are compared based on a locality of reference (LOR) function (page 3, paragraph [0045]). Thus, Douceur teaches a single algorithm specific to image generation that has "random selection aspects". Applicant asserts that Douceur does not teach a selection program for randomly selecting surveillance algorithms. Therefore this combination does not provide a proper prima facia rejection of claim 2 and 7-9 and withdrawal is requested" (Remarks, Page 14, Partial paragraph).

46. Examiner's response:

47. The Examiner is not relying on the algorithm in Douceur to be the randomly selected algorithm. Conversely, it is intended as part of the selection program. The base of the selection program and the algorithms has already been shown by Blumberg. The Examiner simply proposes that the random selection, as taught by Douceur be implemented in the selection program.

48. Moreover, the claim language in claim 3 recites "for selecting surveillance algorithms." This is not a structural limitation. As claimed, it is understood to be intended use. Statements of intended use which do not require the steps to be performed are given less weight. See MPEP § 2106 II C.

Conclusion

49. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA MURDOUGH whose telephone number is (571)270-3270. The Examiner can normally be reached on Monday - Thursday, 7:00 a.m. - 5:00 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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